SHAW, PITTMAN, POTTS & TROWBRIDGE
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

2300 N STREET, N.W.
WASHINGTON, D.C. 20037-1128
(202) 663-8000
FACSIMILE
(202) 663-8007

1501 FARM CREDIT DRIVE
McLEAN, VIRGINIA 22102-5004

201 LIBERTY STREET, S.W.
LEESBURG, VIRGINIA 22075-2721

JILL A. STERN
(202) 663-8380

August 5, 1994

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: IC Docket No. 94-31

Dear Mr. Caton:

On behalf of CTA Incorporated, I am transmitting herewith an original and five copies of its reply comments in the above-referenced proceeding.

Should there be any questions concerning this matter, kindly communicate with the undersigned.

Sincerely,

Jill Abeshouse Stern

Jill Abeshouse Stern

JAS:pad

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
Preparation for International Telecommunication Union World Radiocommunication Conferences	)	IC Docket No. 94-31

REPLY COMMENTS

CTA Incorporated ("CTA"), by its attorneys, submits reply comments with respect to the Notice of Inquiry ("Notice") in the above-captioned proceeding which invites comments to assist in developing the United States position at the 1995 World Radiocommunication Conference ("WRC-95").

I. INTRODUCTION AND SUMMARY

CTA, headquartered in Rockville, Maryland, is a privately-owned company specializing in aerospace engineering, development and integration. Formed in 1979, CTA has more than 1300 employees and revenues, in 1993, of over $140 million.

CTA's Systems Group develops affordable satellite and launch vehicle systems, flexible training simulators, advanced manufacturing systems and real time meteorological systems. In this Group, CTA Space Systems (formerly DSI) is the industry leader in lightweight satellite systems, with more than 19 lightsats successfully manufactured, launched and operated.

Current projects include INDOSTAR, the world's first lightsat Direct Broadcast Satellite under development by CTA International for Indonesia.

CTA's Services Group provides skilled engineering services to public and private sector customers involved in C3I, avionics, space systems, air traffic control and information resource management and reengineering. CTA supports NASA, NOAA and Air Force space programs, including TOPEX/POSEIDON, EOS and the Hubble Space Telescope Repair Mission. CTA also provides engineering support to the FAA Advanced Automation, Weather and Navigation Systems and FAA Technical Center Research and Development programs.

As a leading manufacturer of small satellites and space systems involving communications and remote sensing, CTA has a strong interest in ensuring that sufficient spectrum will be available for implementation of future satellite systems and the innovative services they will provide. For this reason, the United States should seek adoption at WRC-95 of spectrum allocations and technical changes that will facilitate use of small, low-Earth orbiting satellites for a range of satellite services, including mobile, fixed and remote sensing.

In particular, CTA supports (1) allocation of additional spectrum, preferably below 1 GHz, for the non-voice non-geostationary (NVNG) MSS; (2) allocation of additional spectrum for the Earth-exploration-satellite service; (3) allocation of

additional spectrum in the 2 GHz band for non-geostationary fixed satellite services; (4) consideration of guidelines for sharing the 2025-2110 MHz bands previously allocated for earth exploration; and (5) rule revisions that would facilitate introduction of new, global satellite services.

II. THE COMMISSION SHOULD SUPPORT ADDITIONAL SPECTRUM ALLOCATIONS FOR LEO SATELLITE SYSTEMS

From CTA's standpoint as a manufacturer of small satellites and space systems, it is apparent that the spectrum allocation and regulatory framework established at the ITU World Radiocommunication Conferences provides a major stimulus for development of high technology products and services by United States companies. Availability of spectrum, in particular, is a critical "entry barrier" for new satellite systems.

The United States has a unique opportunity at WRC-95 to seek spectrum allocations that will facilitate introduction of a wide variety of satellite-delivered communications and information services using lightsats that are now being actively implemented or considered. Indeed, a prerequisite for the global telecommunications and information infrastructure, that has been endorsed as a national policy objective by Vice President Gore and FCC Chairman Hundt, is sufficient spectrum on a worldwide basis for satellite links.

At WRC-95, CTA recommends that the United States place a high priority on obtaining additional spectrum allocations for LEO satellite services, including additional spectrum below 1 GHz for the non-voice, non-geostationary (NVNG) MSS. In addition, however, the United States should seek allocations for new satellite services, including remote sensing satellites and, potentially, non-geostationary fixed satellite services in the 2 GHz band. In CTA's view, there is a substantial emerging market for various fixed satellite services, including disaster and humanitarian relief. Technological and market development will be stimulated by spectrum allocations for these services. CTA intends to participate actively in the industry advisory committee and ITU working groups to develop specific spectrum allocation proposals.

With respect to the NVNG MSS, CTA supports the comments of other parties in this proceeding. These include the following: (a) upgrade the status of the transit band spectrum (149.9-150.05 MHz) from secondary to primary status, effective January 1, 1996; (b) allocate the 399-400.15 MHz band worldwide (it is now allocated within the US only); (c) modify the 149.9-150.05 MHz allocation for use by generic mobile satellite services (including maritime and aeronautical services); (d) continue to explore the availability of additional allocations below 1 GHz; and (e) continue discussions with NTIA with regard to shared government/non-government use of various bands. These actions

will address the need for additional NVNG MSS spectrum below 1 GHz.

In connection with the earth exploration satellite service, the Commission should support the allocation of additional spectrum to facilitate implementation of the new and innovative remote sensing services that are being planned. At least three companies have already sought Commerce Department approval for private remote sensing satellite systems using small satellites and other requests are likely to be submitted in the near term. The United States should use the opportunity presented by WRC-95 to ensure that there will be sufficient spectrum allocations to support the emerging commercial remote sensing industry.

III. THE COMMISSION SHOULD ENSURE THAT THE EMERGING NVNG MSS IS NOT HANDICAPPED BY UNNECESSARY TECHNICAL RESTRICTIONS

The opening comments in this proceeding correctly point out the need for ensuring that the emerging NVNG MSS is not handicapped by unnecessary technical restrictions. CTA agrees with other commenting parties in this proceeding that the United States position at WRC-95 should focus on elimination of burdensome technical restrictions while, at the same time, opposing the adoption of additional limits that could compromise the viability of LEO systems. In particular, CTA recommends that the United States adopt the following position.

Limit Scope of Restrictions on Mobile Terminals. The United States should not propose worldwide adoption of the US footnote restrictions designed to protect terrestrial government users in the United States (i.e., duty cycle limits in US 323 and US 325) and should oppose any efforts by other administrations to extend these limits. CTA agrees with the views expressed by other parties that these restrictions are overly restrictive and arbitrary and should not be extended worldwide.

Maintain Current Coordination Procedures. The Commission should oppose any significant adverse changes to the international coordination procedures that now apply to the LEO systems. The ITU's Voluntary Group of Experts has proposed certain changes in the coordination procedures that could impact unfairly on LEO systems.

Relax Power Flux Density Limits. The United States should seek relaxation of the power flux density limits imposed by ITU Footnotes 608A and 608B. These limits (-150 dB(W/m^2/4 kHz)) should be removed or conditioned to apply only in those instances where the potential for interference cannot be resolved between administrations.

IV. CONCLUSION

In order to facilitate implementation of new and innovative small satellite services, the United States should support, at WRC-95, additional global spectrum allocations for a variety of non-geostationary satellite services, including NVNG MSS, remote sensing and fixed satellite services; and otherwise facilitate introduction of new and innovative LEO satellite services, by ensuring that unnecessary technical restrictions do not handicap these emerging services.

Respectfully submitted

CTA INCORPORATED

By: Jill Abeshouse Stern

Jill Abeshouse Stern
SHAW, PITTMAN, POTTS & TROWBRIDGE
2300 N Street, N.W.
Washington, D.C. 20037
(202) 663-8380

Its Attorneys

Michael Ladino
General Counsel
CTA INCORPORATED
6116 Executive Blvd.
Rockville, MD 20852
(301) 816-1200

August 5, 1994

CERTIFICATE OF SERVICE

I, Jill Abeshouse Stern, hereby certify that a copy of the foregoing document was hand-delivered or mailed, first class, postage prepaid this 5th day of August, 1994 to the following:

Reed Hundt*
Chairman
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Andrew Barrett*
Commissioner
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

James Quello*
Commissioner
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Susan Ness*
Commissioner
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Rachelle Chong*
Commissioner
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

A. Richard Metzger*
Acting Chief
Common Carrier Bureau
Federal Communications Commisson
1919 M Street, N.W., Room 500
Washington, D.C. 20554

Scott Blake Harris*
Director
Office of International Communications
Federal Communications Commission
1919 M Street, N.W.
Room 6010
Washington, D.C. 20554

Thomas Tycz*
Deputy Chief
Domestic Facilities Division
Federal Communications Commission
2025 M Street, N.W.
Washington, D.C. 20554

Dr. T. Stephen Cheston
Director, International
Government Relations
James G. Ennis
Director, Licensing Affairs
F. Thomas Tuttle
Deputy General Counsel
IRIDUM, Inc.
1401 H Street, N.W.
Washington, D.C. 20005

Norman P. Leventhal
Raul R. Rodriquez
Leventhal, Senter & Lerman
2000 K Street, N.W.
Suite 600
Washington, D.C. 20006

Robert A. Mazer
Nixon, Hargrave, Devans & Doyle
One Thomas Circle, N.W.
Suite 800
Washington, D.C. 20005

John T. Scott, III
William D. Wallace, Esq.
Crowell & Moring
1001 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2505

Leslie A. Taylor
Leslie Taylor Associates
6800 Carlynn Court
Bethesda, Maryland 20817-4302

Tom W. Davidson, P.C.
Akin, Gump, Strauss, Hauer & Feld
1333 New Hampshire Avenue, N.W
Suite 400
Washington, D.C. 20036

Nancy T. Thompson
Comsat Mobile Communications
22300 Comsat Drive
Clarksburg, Maryland 20871

Stephen L. Goodman
Halprin, Temple & Goodman
Suite 650 East Tower
1100 New York Avenue, N.W.
Washington, D.C. 20005

David A. Gross
AirTouch Communications
1818 N Street, N.W.
Washington, D.C. 20036

Philip L. Malet
Alfred M. Mamlet
Steptoe & Johnson
1330 Connecticut Ave., N.W.
Washington, D.C. 20036

Barry Lambergman
Fletcher, Heald & Hildreth
1300 North 17th Street
11th Floor
Rosslyn, VA 22209

Gary M. Epstein
John P. Janka
Mary E. Britton
Latham & Watkins
1001 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Robert A. Mansbach
COMSAT Corporation
COMSAT World Systems
6560 Rock Spring Drive
Bethesda, Maryland 20817

Philip V. Otero
Alexander P. Humphrey
GE American Communications, Inc.
1299 Pennsylvania Ave., N.W.
Washington, D.C. 20004

Bruce D. Jacobs, Esq.
Glenn S. Richards, Esq.
Howard C. Griboff
Fisher, Wayland, Cooper, Leader &
Zaragoza, L.L.P.
2001 Pennsylvania Ave., N.W.
Suite 400
Washington, D.C. 20006-1851

Lon C. Levin. Esq.
Vice President and Regulatory Counsel
AMSC Subsidiary Corporation
10802 Parkridge Boulevard
Reston, Virginia 22091

Leonard S. Kolsky
Vice President
Motorola, Inc.
1350 I Street, N.W.
Suite 400
Washington, D.C. 20005

Robert B. Kelly
Kelly, Hunter, Mow & Povich, P.C.
Seventh Floor
1133 Connecticut Avenue, N.W
Washington, D.C. 20036

Leonard R. Raish
Fletcher, Heald & Hildreth
1300 North 17th Street
11th Floor
Rosslyn, Virginia 22209

Christopher D. Imlay
Booth, Freret & Imlay
1233 20th Street, N.W.
Suite 204
Washington, D.C. 20036

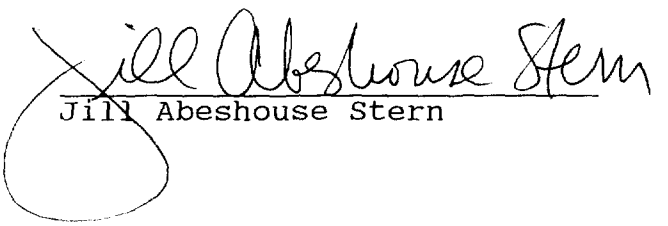
Julian L. Shepard
Vice President and General Counsel
Victor Tawil
Vice President
Association for Maximum
Service Television, Inc.
1776 Massachusetts Ave., N.W.
Suite 300
Washington, D.C. 20036

Jonathan D. Blake
Kurt A. Wimmer
Ronald J. Krotoszynski, Jr.
Covington & Burling
1201 Pennsylvania Avenue, NW
P.O. Box 7566
Washington, D.C. 20044

Thomas J. Keller
Verner, Liipfert, Bernhard,
McPherson and Hand
901 Fifteenth Street, N.W.
Suite 700
Washington, D.C. 20005

John L. Bartlett
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006

George Jacobs & Associates, Inc.
Consulting Broadcast Engineers
8701 Georgia Avenue
Suite 410
Silver Spring, Maryland 20910



Jill Abeshouse Stern

* Hand-delivered

0071:482JAS.94